It’s Not “Just” Validation: The Effect of Organizational Justice on Contributions to a Knowledge Repository

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Abstract

The value of an electronic knowledge repository depends on the degree to which it offers high quality knowledge to its users. Consequently, firms that use such repositories often implement validation procedures to monitor and ensure the quality of submitted content. However, if perceived as unreasonable or unfair, validation can have the unintended effect of discouraging employee contributions. Drawing on literature in knowledge sharing and organizational justice, we develop hypotheses about how various dimensions of perceived justice of validation procedures influence employees’ perceptions of knowledge quality within the repository and their knowledge contributions to it. Analysis of survey data collected at a large North American technical support company reveals that both quality perceptions and contribution behaviors are positively influenced by perceived procedural justice of validation, but not by perceived informational or interpersonal justice. We conclude by discussing implications of these results for knowledge management research and practice.

1. Introduction

In today’s knowledge-driven economy, the competitive necessity of managing knowledge assets has prompted many firms to implement information technology-based knowledge repositories (KRs) to capture, store and disseminate relevant knowledge throughout the organization. However, though a KR offers many potential enhancements to knowledge management processes, its value ultimately depends on whether it contains knowledge that is accurate and valuable to the individuals who use it [53, 42]. Getting high quality knowledge into the KR requires two steps: First, knowledge must be contributed, a task usually performed by members of the community that utilize it as a knowledge source [15, 51]. Second, the contributed knowledge must be validated to ensure its accuracy, as a KR that contains incomplete, specious, or flawed information offers little value and will quickly be abandoned [48].

On the surface, it seems reasonable that the steps of submitting and validating knowledge in a KR should go hand-in-hand in ensuring its viability as a source of high-quality knowledge. However, research suggests that this may not always be the case. Individuals may not always be willing to share their knowledge, particularly if they believe it will be subjected to a process of scrutiny that is overly critical or unwarranted [25]. If individuals perceive KR validation processes as unfair or unjustified, they might refrain from contributing their knowledge to the KR, thereby undermining its sustainability as a valuable source of organizational knowledge [15]. Thus there is significant practical and theoretical incentive to better understand how and whether perceptions of knowledge validation procedures influence KR knowledge contribution.

Extant research on knowledge sharing has shown that individuals decide whether or not to share their knowledge based on many factors, including costs [25], intrinsic and extrinsic rewards [26], and organizational norms and climate variables [7]. However, the literature lacks studies that have explored whether and how knowledge contributions of a KR are influenced by perceptions of fairness in knowledge validation procedures. The current study addresses this void by drawing on literature in the domains of knowledge sharing [7, 26, 31, 25] and organizational justice [11, 22, 5] to explore how knowledge contribution to a KR is influenced by perceptions of fairness in KR knowledge validation procedures. A theoretical model is proposed and tested via survey data collected at a large North American technical support company. The results of this study extend extant theory surrounding KR knowledge contribution and offer actionable implications for managers seeking to influence KR knowledge contribution within their organizations.

2. Theoretical Background and Hypotheses
A KR is an information-technology based system designed to support storage and reuse of organizational knowledge assets [20, 27]. A KR has the potential to significantly enhance the transfer of knowledge within an organization by facilitating knowledge flows from those who can provide it to those who need it [2, 14]. However, its legitimacy as a platform for knowledge transfer depends on the degree to which it contains knowledge that is useful to employees. While knowledge in the KR may theoretically originate from many sources, in most cases it is contributed by the same community of users that utilize the KR as a knowledge source [30, 51]. Because knowledge contribution can seldom be mandated, the organizational value of the KR depends on users’ willingness to voluntarily contribute their knowledge to it. Consequently, understanding factors that influence knowledge contribution to the KR is highly relevant to knowledge management scholars and practitioners.

Information systems research has explored several different variables that influence whether or not an individual is willing to share knowledge. For example, Bock et al., [7] found that intention to share knowledge (actual knowledge sharing behavior was not examined) was influenced by an individual’s attitude toward knowledge sharing, the subjective norm of knowledge sharing within the firm, and an organizational climate characterized by fairness, affiliation and innovativeness. Kankanhalli et al., [26] found that contributions to a KR were negatively associated with costs of contributing and positively associated with extrinsic benefits (e.g., organizational reward) and intrinsic benefits (e.g., knowledge self-efficacy and enjoyment in helping others). Watson and Hewett [51] found that KR knowledge contribution was positively related to KR knowledge reuse, tenure in the organization, and opportunities to advance within the organization.

These studies attest to the diversity of both individual- and organizational-level factors that can influence knowledge sharing. However, one important aspect of the KR contribution process that has received relatively little attention is knowledge validation, the mechanism by which knowledge submitted to the KR is reviewed and vetted to ensure its level of quality [16, 4, 19]. Although KR managers may decide to allow unrestricted contributions, knowledge management research suggests that validation is essential to maintaining high quality content within a KR, thus enhancing its value to knowledge seekers [34, 41, 53]. Because knowledge in a KR is often ad-hoc, unstructured, and subjective, validation can rarely be performed automatically [35]. Instead, this task usually falls to subject matter experts who review contributions and filter out those that are inaccurate, ineffective, redundant, or of otherwise dubious quality [48, 34]. “Without such a validation process, a repository ‘soon overflows with knowledge assets of questionable value’ [41p. 122] and can, as a result, lose its credibility with employees” [15, p. 82].

Though it is well-established that validation has a salutary effect on KR knowledge quality, it may also have unintended effects on potential knowledge contributors who could see the validation process as an obstacle to contribution. Such individuals might be less inclined to contribute to the KR for at least two reasons. First, because knowledge sharing is costly [26], individuals who expect that their contributions might be rejected may be unwilling to expend the time and effort necessary to contribute. Second, individuals may fear embarrassment or damage to their reputation if their contributions are scrutinized and rejected [25].

Few studies have examined the effect of validation procedures on knowledge contribution. One exception is Durcikova and Gray [15], who relied on signaling and reinforcement theories to explore how process-based characteristics of the validation process influenced both perceptions of knowledge quality in the KR and individuals’ contributions to it. Characteristics studied included duration (how much time the validation process required), transparency (the extent to which the validation process was observable) and restrictiveness (the percentage of knowledge submissions rejected). Intuitively, findings showed that validation processes perceived to be long in duration, overly restrictive, or lacking in transparency tended to reduce perceptions of knowledge quality in the KR and reduce the degree to which community members contributed to it. Moreover, contributions to the repository were less likely when individuals perceived KR knowledge quality was high.

In this study, we build on the work of Durcikova and Gray [15] to explore how perceptions of KR knowledge validation processes and perceived KR knowledge quality influence knowledge contribution. However, our approach differs from that of Durcikova and Gray in that we focus not on process-based characteristics of the validation process (e.g., duration, restrictiveness), but on contributors’ perceptions of its fairness. Although a direct link between perceived fairness of validation procedures and contribution to a KR has not been explored, several studies on knowledge sharing suggest that fairness and equitable treatment by the organization can be a determining factor in deciding whether or not to share knowledge [e.g., 7, 31, 46]. We believe that studying perceived justice of validation procedures may offer a more proximal account for reluctance or willingness to contribute knowledge than process-based
characteristics themselves. For example, a knowledge contributor may be willing to accept a validation process that is long and stringent if she perceives that the process is fundamentally fair; however, validation processes viewed as unjust could have dampening effects on willingness to contribute knowledge, regardless of duration or rigor. Thus exploring fairness of validation procedures is an important step in advancing theory of KR knowledge contribution.

To inform our examination of perceived fairness of KR validation processes, we draw on literature in organizational justice. Organizational justice refers to an individual’s perceptions of and reactions to fairness in an organization [22]. Prior research has conceptualized organizational justice along three primary dimensions: distributive, procedural, and interactional [10, 11]. Distributive justice refers to the equity of distribution of resources and decision outcomes, while procedural justice concerns the perceived fairness of processes that lead to outcomes [23]. The third dimension, interactional justice, was proposed as an outgrowth of procedural justice, and deals with the perceived fairness of treatment received by an individual [5]. Interactional justice has come to be conceptualized as being divided into two sub-dimensions: informational and interpersonal [10, 5]. Informational justice focuses on the degree to which individuals are provided with adequate information that explains decisions made or actions taken, while interpersonal justice captures the degree to which individuals are treated with politeness, dignity, and respect.

Over the years, organizational justice research has explored how different justice dimensions influence various individual and organizational outcomes. Though this remains an active research topic, studies have generally concluded that distributive justice tends to be more strongly associated with specific person-related outcomes such as satisfaction with a pay raise, while procedural justice tends to be more strongly related to general evaluations of systems and authorities [11, 21, 32, 37, 50]. With respect to contributing knowledge to a KR, we anticipate procedural justice (and, by extension, interactional justice) to be more operant than distributive justice. The rationale behind this expectation is twofold. First, contributions to a repository are rarely compensated by distribution of monetary remuneration. Though certain non-monetary rewards may eventually result (e.g., enhanced reputation) these are likely to be sufficiently detached from the knowledge contributions as to render a causal link improbable. Second contributing knowledge to a KR is a type of organizational citizenship behavior, or an act that is voluntary and not explicitly rewarded but that can benefit the organization [43]. Justice studies have repeatedly shown that citizenship behaviors are more associated with procedural justice perceptions than with distributive justice perceptions [11, 3, 38].

In this paper, we develop hypotheses that integrate the work of Durcikova and Gray [15] with key elements from the literature on organizational justice and knowledge sharing [31, 46, 11]. Following Durcikova and Gray [15], we anticipate that perceptions of KR knowledge quality and, ultimately, contribution to the KR will be influenced by perceptions of the validation process. However, drawing from the literature on organizational justice and knowledge sharing, we focus on fairness of validation procedures rather than process-based characteristics. The overall premise of our hypotheses is that individuals should esteem the quality of KR knowledge content more highly and be more likely to contribute to a KR when they perceive that knowledge validation procedures are just. To be perceived as procedurally just, validation should adhere to procedures that the knowledge contributor perceives as being impartial, equitable, and that produce justifiable acceptance/rejection decisions. Logically, a person who views validation procedures as possessing these characteristics should be more likely to ascribe legitimacy to the results of the process, leading to higher perceptions of KR knowledge quality. In addition, an individual who trusts that submissions to the KR will be fairly reviewed should be more willing to submit knowledge than one who believes that the review process is capricious or arbitrary. This hypothesis is supported by organizational research that has established a link between perceptions of procedural justice and an overall willingness to share knowledge [28, 31, 46]. This leads to the first hypothesis:

H1: Perceptions that the KR knowledge validation procedure is procedurally just will lead to (a) increased perceived knowledge quality and (b) increased knowledge contribution to the KR.

Perceptions of KR knowledge quality and willingness to submit knowledge to the KR are also likely to be influenced by perceived interactional justice of the validation process. Some justice studies have argued that interactional justice plays an important role in evaluation of organizational authority figures and systems [5, 36]. Because validation is usually performed by one or more authoritative “experts” who can accept or reject submissions, contributors’ reactions to the validation process may in part reflect how they are treated by those reviewing their submissions. As noted earlier, interactional justice is composed of informational and interpersonal justice. An informationally just validation process is
one that provides timely and descriptive information regarding the process of and outcome of the validation process. Keeping contributors informed enhances perceptions of fairness because it allows contributors to understand how and why specific decisions are reached [7, 1, 29]. Consistent with this idea, Durcikova and Gray [15] found that perceived transparency of knowledge validation processes related positively to perceived KR knowledge quality and contribution to the KR. Accordingly, we anticipate that knowledge contributors who are informed about how validation decisions are made should be more likely to evaluate KR content quality highly and submit knowledge to a KR than those who are kept in the dark regarding these procedures.

H2: Perceptions that the KR knowledge validation procedure is informationally just will lead to (a) increased perceived knowledge quality and (b) increased knowledge contribution to the KR.

The other dimension of interactional justice is interpersonal justice, which comprises the degree to which a person is treated with respect and politeness in a decision process. Studies have shown that individuals are more likely to accept decision outcomes if they are treated with courtesy and respect, even when such outcomes are unfavorable [6]. Additionally, research has substantiated a link between interpersonal justice and organizational citizenship behaviors [10], which, as discussed earlier, include knowledge sharing. Logically, a person who is treated courteously and respectfully during the validation process should be more likely to esteem the validation process highly, ascribe validity to its conclusions and, make future knowledge submissions. This leads to the third hypothesis:

H3: Perceptions that the KR knowledge validation procedure is interpersonally just will lead to (a) increased perceived knowledge quality and (b) increased knowledge contribution to the KR.

Our last hypothesis concerns the relationship between perceived knowledge quality and KR knowledge contribution. Following Durcikova and Gray [15], we anticipate that perceived KR knowledge quality will negatively influence people’s willingness to contribute to it. Though somewhat counterintuitive, this hypothesis derives from two lines of reasoning. First, perceptions of high quality may discourage contributions from individuals who question the caliber of their own submissions or feel that the effort required to achieve such quality is too great. Second, a KR that already contains high quality information may be perceived as offering fewer opportunities to make contributions that are meaningful and non-redundant. Therefore, H4: Perceptions of higher knowledge quality in the KR will lead to decreased knowledge contribution to the KR.

Finally, we incorporate gender, expertise, and knowledge sourcing from the KR as control variables in our model [15], as prior research indicates that perceptions of KR knowledge and willingness to contribute to it by one’s expertise [49, 24] and whether one uses the KR as a knowledge source [51].

Figure 1 depicts the research model in graphical form.

Figure 1. Research Model

3. Methodology & Data Analysis

3.1. Data Collection

An online survey was designed to gather data about contribution behavior of KR users along with their perceptions of all the other constructs in our research model. The participants were technical help desk support analysts at a large North American firm that has more than 50,000 employees in various call centers across U.S. At the time of the survey, a technical support KR had been in place at this company for more than one year, thus allowing analysts ample time to learn the system. The KR contained solutions to troubleshooting problems that analysts encountered during their work. The software provided analysts with both search and drill-down functionality when looking up solutions.

Each analyst was encouraged to submit at least three knowledge contributions each quarter. These contributions could range from minor changes to already existing entries in the system to completely new entries. Once analysts submitted their contribution, the interface required them to define their contribution (in terms of software/hardware it related to) so that it could be automatically routed to the appropriate subject matter expert for review.
Reviewers were notified automatically by the system and were asked to review the new contribution for accuracy, completeness, and non-redundancy. Completed evaluations together with the original contribution were automatically routed to a manager for final approval. If the contribution was approved, it was routed to the editing team for final revisions and formatting prior to being published in the KR.

A total of 300 analysts at a particular location were invited to participate in the survey. Two email reminders were sent within 30 days of the start of data collection. A total of 118 usable responses were received within 30 days with no significant difference between early and late responders. Thus the response rate was 39 percent. The average age of respondents was 37 and their average job tenure was 7 years. Forty-nine percent were females. Results of Harman’s single-factor test [44] and the marker variable test [33] indicated that common-method bias was not present.

### 3.2. Measurement

Scales validated in prior work were adapted for this study. All items were measured on a seven-point Likert scale anchored on 1 (strongly disagree) and 7 (strongly agree). Items measuring procedural, informational and interactional justice were adapted from Colquitt [10]. Items measuring perceived quality of knowledge were adapted from Durcikova and Gray [15]. Frequency of contribution items were adapted from Kankanhalli et al. [26]. Scales for control variables included knowledge sourcing adapted from Gray and Durcikova [20], and expertise adapted from Sussman and Siegal [49]. The instrument was refined by five analysts to ensure that the items were appropriately worded.

### 3.3. Analysis

The model was tested using Partial Least Squares (PLS; SmartPLS version 2.0 [45]), a structural equation modeling technique that employs principal component analysis, path analysis, and regression to simultaneously evaluate data and theory. The adequacy of the measurement model was verified using three common tests of reliability and validity produced by the PLS analysis [39]. First, the loadings of items on their respective constructs were calculated to establish convergent and discriminant validity. As shown in Table 1, all items loaded at levels greater than 0.7, indicating that there was more shared variance between a construct and measure than there was error variance [8]. Additionally, all items loaded at least one order of magnitude higher on their assigned construct than on any other construct, indicating adequate discriminant validity between constructs [18] (cross-loadings not shown due to space constraints). Second, internal consistency of each scale was assessed using composite reliability [52], for which the lowest value was 0.908, well exceeding Nunnally’s [40] 0.7 guideline. Third, the average variance extracted (AVE) [17] for all scales exceeded Chin’s [9] guideline of 0.5 and the square root of AVE for each construct exceeded all respective inter-construct correlations, providing further evidence of convergent and discriminant validity. Table 2 summarizes these results.

<table>
<thead>
<tr>
<th>Construct/Item code</th>
<th>Item wording</th>
<th>Loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Procedural justice:</strong> “To what extent...”</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PJ1</td>
<td>Have you been able to express your views and opinions during the submission procedure?</td>
<td>0.792</td>
</tr>
<tr>
<td>PJ3</td>
<td>Have the validation procedures been applied consistently?</td>
<td>0.922</td>
</tr>
<tr>
<td>PJ4</td>
<td>Have the validation procedures been based on accurate information?</td>
<td>0.917</td>
</tr>
<tr>
<td>PJ5</td>
<td>Have the validation procedures been made clear to you?</td>
<td>0.835</td>
</tr>
<tr>
<td><strong>Informational justice:</strong> “To what extent...”</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IFJ1</td>
<td>Have the reviewers been candid in their communications with you?</td>
<td>0.884</td>
</tr>
<tr>
<td>IFJ2</td>
<td>Have the reviewers explained the review and approval procedures thoroughly?</td>
<td>0.864</td>
</tr>
<tr>
<td>IFJ3</td>
<td>Were the reviewers’ explanations regarding the procedures they used reasonable?</td>
<td>0.912</td>
</tr>
<tr>
<td>IFJ4</td>
<td>Have the reviewers communicated details in a timely manner?</td>
<td>0.818</td>
</tr>
<tr>
<td><strong>Interpersonal justice:</strong> “To what extent...”</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IPJ1</td>
<td>Have the reviewers treated you in a polite manner?</td>
<td>0.969</td>
</tr>
<tr>
<td>IPJ2</td>
<td>Have the reviewers treated you with respect?</td>
<td>0.984</td>
</tr>
<tr>
<td>IPJ3</td>
<td>Have the reviewers treated you with dignity?</td>
<td>0.975</td>
</tr>
<tr>
<td>IPJ4</td>
<td>Have the reviewers refrained from making improper remarks or comments?</td>
<td>0.889</td>
</tr>
<tr>
<td><strong>Frequency of knowledge submission</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FRQ1</td>
<td>I frequently submit knowledge to the KR.</td>
<td>0.954</td>
</tr>
<tr>
<td>FRQ2</td>
<td>I often contribute knowledge to the KR.</td>
<td>0.962</td>
</tr>
<tr>
<td>FRQ3</td>
<td>I am a regular contributor to the KR.</td>
<td>0.947</td>
</tr>
<tr>
<td>FRQ4</td>
<td>Submitting knowledge to the KR is something I do on a regular basis.</td>
<td>0.923</td>
</tr>
<tr>
<td><strong>Perceived knowledge quality</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PQ1</td>
<td>The knowledge in the KR is precise.</td>
<td>0.920</td>
</tr>
</tbody>
</table>
PQ2 The content of the KR meets my needs. 0.936
PQ3 The knowledge in the KR is accurate 0.944
PQ4 Overall, the quality of knowledge in the KR is high 0.936

Knowledge sourcing
KS1 I rarely use the KR as a way of acquiring knowledge. (R) 0.807
KS2 I frequently check in the KR when I need to improve my knowledge on a topic or issue. 0.935
KS3 When I am working on a problem, I often look in the KR to find solutions to similar problems. 0.786
KS4 I often obtain knowledge through the KR. 0.938

Expertise
EXP1 I am very good at solving our customer’s technical problems. 0.843
EXP2 I am an expert technical troubleshooter. 0.963
EXP3 My colleagues would consider me to be an expert in my areas of technical knowledge 0.956

Table 2. Construct, AVE, Reliability, and Inter-Construct Correlations

<table>
<thead>
<tr>
<th>Construct</th>
<th>AVE</th>
<th>Composite Reliability</th>
<th>Cronbach's Alpha</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expertise</td>
<td>0.851</td>
<td>0.945</td>
<td>0.915</td>
<td>0.922</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>1.000</td>
<td>1.000</td>
<td>1.000</td>
<td>0.221</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Informational justice</td>
<td>0.758</td>
<td>0.926</td>
<td>0.893</td>
<td>0.079</td>
<td>-0.207</td>
<td>0.870</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interpersonal justice</td>
<td>0.913</td>
<td>0.977</td>
<td>0.968</td>
<td>0.102</td>
<td>-0.168</td>
<td>0.732</td>
<td>0.955</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge sourcing</td>
<td>0.712</td>
<td>0.908</td>
<td>0.864</td>
<td>0.000</td>
<td>-0.219</td>
<td>0.465</td>
<td>0.383</td>
<td>0.844</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Procedural justice</td>
<td>0.755</td>
<td>0.924</td>
<td>0.890</td>
<td>0.058</td>
<td>-0.141</td>
<td>0.824</td>
<td>0.761</td>
<td>0.469</td>
<td>0.869</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceived knowledge quality</td>
<td>0.873</td>
<td>0.965</td>
<td>0.951</td>
<td>-0.098</td>
<td>-0.206</td>
<td>0.582</td>
<td>0.537</td>
<td>0.682</td>
<td>0.638</td>
<td>0.934</td>
<td></td>
</tr>
<tr>
<td>Frequency of knowledge submission</td>
<td>0.896</td>
<td>0.972</td>
<td>0.961</td>
<td>0.246</td>
<td>0.023</td>
<td>0.452</td>
<td>0.434</td>
<td>0.174</td>
<td>0.541</td>
<td>0.207</td>
<td>0.947</td>
</tr>
</tbody>
</table>

The hypotheses were tested by examining the size and significance of the structural paths in the PLS analysis and the percentage of variance explained. The results are reported in Figure 2.

First, the model explained 61.5 percent of variance in perceived knowledge quality. Only procedural justice (H1a, $\beta = 0.320, p < 0.01$) significantly influenced perceived knowledge quality as hypothesized. Informational justice (H2a, $\beta = 0.043$, n.s.) and interpersonal justice (H3a, $\beta = 0.086$, n.s.) did not have a significant effect. Of the control variables, knowledge sourcing ($\beta = 0.485, p < 0.01$) and expertise ($\beta = -0.132, p < 0.05$) significantly influenced knowledge quality, but gender did not ($\beta = 0.005, p > 0.1$).

Second, the model explained 36.2 percent of the variance in knowledge contribution. Of the hypothesized antecedents, only procedural justice (H1b, $\beta = 0.538, p < 0.001$) significantly influenced knowledge contribution. Neither informational justice (H2b, $\beta = 0.006$, n.s.) nor interpersonal justice (H3b, $\beta = 0.041$, n.s.) had a significant effect. Of the control variables, only expertise ($\beta = 0.204, p < 0.05$) positively influenced knowledge contribution.

Finally, as predicted by H4, perceived knowledge quality had a negative effect on knowledge contribution ($\beta = -0.192, p < 0.1$).

Figure 2. Hypothesis Testing Results

4. Discussion

This study explored how perceived justice of a KR validation process influences individuals’ perceptions of KR knowledge quality and their
propensity to contribute knowledge to it. Building on organizational justice literature [e.g., 11, 22], we hypothesized that the more people perceived validation procedures to be procedurally, informationally, and interpersonally just, the higher their perceptions of KR knowledge quality would be, and the more they would contribute their own knowledge to the KR. We also hypothesized that perceived KR knowledge quality would negatively relate to KR knowledge contribution [15].

The results of our study provide mixed support for the hypothesized relationships and point to several interesting implications for research. Perhaps most noteworthy is the pattern of results observed for the relationships between the three justice dimensions and the respective dependent variables. As hypothesized in H1, perceived procedural justice of validation procedures was positively associated with both perceived KR knowledge quality and KR knowledge contribution. However, no significant relationship could be substantiated between perceived informational justice (H2) or perceived interpersonal justice (H3) and these outcomes. At least two possible theoretical implications can be drawn from this pattern. First, for knowledge management research, our results suggest that different dimensions of perceived justice likely exert differential effects on both KR-related perceptions and behaviors. From a theoretical standpoint, perceived procedural justice of validation procedures seems to be more salient in determining KR knowledge contribution behaviors than perceived interactional justice (informational and interpersonal). This result accords with that of other studies that have hypothesized and substantiated a link between firm-level procedural justice perceptions and general knowledge sharing behaviors [28, 31, 46]. Nevertheless, despite this pattern, we do not believe that interactional justice should be discounted entirely. Logically, it would seem improbable that a validation procedure characterized by opacity and brusque treatment of knowledge contributors could have a positive effect on perceptions of KR knowledge quality and knowledge contribution. However, our results do imply that employees place more emphasis on the fairness of the validation procedure itself than on how well they are informed or how politely they are treated.

Our results also have implications for the more general body of literature on organizational justice. Though researchers generally agree that organizational justice is multi-dimensional, some studies have had difficulty discriminating between them or verifying that they produce any differential effect on relevant outcomes [10]. This has prompted debate as to whether a multi-dimensional justice view is theoretically justified, or whether a more monistic perspective should be adopted [12]. Though not conclusive, our results lend support to studies [e.g., 5] that support a theoretical and practical distinction between the effects of procedural and interactional justice.

A third implication of our work concerns the relationship between perceived KR knowledge quality and the behavior of KR knowledge contribution (H4). Consistent with prior research [15] and with our hypothesis, higher perceived KR knowledge quality was negatively related to contribution behaviors. This observation challenges the common postulate that higher quality information within a system leads to more system satisfaction and use [13, 47]. The key theoretical qualification highlighted here is that this relationship may not hold for certain types of system use. Specifically, while higher perceived KR knowledge quality may lead to increased use of the KR as a knowledge source [34, 41], it may actually discourage people from attempting to contribute to it. This result emphasizes the importance of exploring theoretically nuanced perception-use relationships that consider specific types of use behaviors rather than making broad assumptions regarding system characteristics that, on the surface, seem universally positive.

Finally, implications for research can be drawn from the results observed for control variables. Unsurprisingly, perceived KR knowledge quality positively related to use of the KR as a knowledge source, corroborating a common tenet of prior research that KR knowledge sourcing depends on the perceived quality of its contents [34, 41]. Additionally, employees with higher levels of expertise were more likely to contribute knowledge to the KR, but less likely to view the knowledge it contained as high quality. Intuitively, this implies that KR knowledge contributions should be expected to originate primarily from those with higher levels of expertise, though these individuals may simultaneously rely less on the KR and thus rate the quality of its knowledge lower.

For practitioners, our results show that knowledge contributions to a KR can potentially be enhanced by ensuring that the validation process are recognized as procedurally fair. This might be accomplished in a number of ways. For example, employees could be given the opportunity to participate in the validation process on a rotating basis, thereby increasing their involvement and giving them input into how validation is performed. Additionally, validation processes that produce a simple “accept/reject” decision could be augmented to create a more
developmental approach allowing revision and resubmission, a process similar to that employed in the academic domain [15]. Although such a strategy would require additional resources, it could prove effective in sustaining or increasing the rate of knowledge contribution without sacrificing quality, thus keeping knowledge in the KR fresh and useful.

Our results indicate that practitioners also face an interesting quandary with respect to perceptions of KR knowledge quality and knowledge contribution. On one hand, KR managers clearly want to convey that the KR contains high quality knowledge so that it will be utilized as a knowledge source. However, setting the quality bar too high might have the unintended effect of choking off submissions from employees who feel they cannot make a meaningful contribution. This dilemma might be somewhat ameliorated by employing the more developmental review process discussed earlier. If employees believe that they will be encouraged and guided in the process of making a contribution that will ultimately be viewed as valuable, they should be more likely to perceive KR knowledge contribution as a worthwhile and attainable goal. Additionally, practitioners may wish to consider a reinforcement-based system that helps employees overcome reservations about knowledge submission by rewarding them for their efforts to contribute.

Like any research, this study has limitations that should be considered. First, because the data collected is cross-sectional, our ability to definitively establish causal relationships is limited. Though the directionality of our hypothesis is supported by both logic and theory, longitudinal data could more conclusively establish causality in the relationships we have examined. Second, collecting data at a single organization could limit the external validity of our findings. Although we have no reason to believe that the company that participated in this study is non-representative of similar organizations that utilize a KR, the generalizability of our results should nevertheless be viewed with some caution. A third limitation is that our study relied on subjective measures of KR contribution frequency. Future studies that employ objective contribution measures may offer insights that corroborate or challenge those observed here.

Future work can explore several research questions that build on the results from this study. For example, what types of validation procedures (e.g., single expert review vs. committee review vs. community review) are most likely to ensure perceptions of procedural justice and, consequently, knowledge contribution? What is the best way for organizations to achieve the proper balance between maintaining high-quality KR content and encouraging employees to contribute their knowledge? And how might the role of justice perceptions shift in the presence of organizational incentive programs that offer extrinsic motivation for knowledge sharing?

5. Conclusions

Organizations that rely on KR systems to capture, share, and manage their knowledge must simultaneously validate and encourage employees’ knowledge submissions. Our results indicate that among various justice dimensions, procedural justice of the validation process seems to have the greatest influence on perceived KR knowledge quality and individuals’ willingness to contribute to it. Thus, to promote knowledge contribution, firms should ensure that they implement just validation procedures.

6. References


Motivators, Social-Psychological Forces, and Organizational Climate", MIS Quarterly, 29 (2005), pp. 87-111.


